

SYSTEM AND METHOD FOR PREDISTORTING A SIGNAL USING CURRENT AND PAST SIGNAL SAMPLES

ABSTRACT OF THE DISCLOSURE

- 5 A predistortion system uses a predistortion function which is a combination of functions which are dependent on one of a plurality of time spaced samples of the input signal and independent of the other samples. Using such a structure for the predistortion function enables an easier and low cost implementation. For example, a plurality of time spaced samples are used by predistortion circuitry to produce the
- 10 predistorted signal. The predistortion circuitry includes first function circuitry which produces a current sample output value depending on a current input sample and independent of a delayed input sample. A second function produces a delayed sample output value depending on the delayed input sample and independent of the current input sample. Each of any additional functions produces an additional delayed sample
- 15 output value depending on an additional delayed input sample and independent of any other input samples. The sample output values are combined to produce the predistorted sample.